

ALEKSANDROV, A.N.; DEMENT'YEVA, M.I.; FEDCHENKO, G.S.; SKOP. S.L.;
TISOVSKIY, G.I.

Analyzing vinyltoluene by mass-spectrometry and gas-liquid
chromatography. Khim. i tekhn. topl. 1 masel 9 no. 6:64-67
Je '64 (MIRA 17:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimi-
cheskikh protsessov.

REINIS, Z; SKOP, V; FLEISCHMANN, J.

Direct lumbar aortography. Cas. lek. česk. 89 no.29:809-811
21 July 1950. (CIML 20:1)

1. Of the Institute of Anatomy of Charles University. 2. Of the
Fourth Internal Clinic.

SKOP, Vaclav, MUDr; ZAVODNY, Frantisek, MUDr

Angiocardiography in adults. Cas.lek.cesk. 91 no. 34:975-977 22
Aug 52.

1. Ze IV. interni kliniky Karlovy university. Prednosta: prof.
MUDr Boh. Prusik.

(ANGIOGRAPHY,

angiocardiology in adults)

(CARDIOVASCULAR SYSTEM, radiography,

angiocardiology in adults)

KRCILEK, A.;SKOP, V.

New method of phlebography of the lower extremities. Cas. lek. cesk.
92 no.45:1232-1234 6 Nov 1953. (CML 25:4)

1. Of the Fourth Internal Clinic (Head--Prof. B. Prusik, M.D.) of
Charles University, Prague.

SKOP, VACLAV

SKOP, VACLAV, As. Dr

Roentgenologic manifestations of pain of the upper extremities.
Prakt. lek. 34 no.13:292-293 Jy '54.

1. IV. Interni klinika Karlovy university v Praze.
 (ARM, diseases,
 *pain, x-ray manifest.)
 (PAIN,
 *arms, x-ray manifest.)

KRCILEK, Antonin, Dr; SKOP, Václav, Dr; LEVINSKY, Ladislav, Doc. Dr;
KRCILKOVA, Milada, Dr

Congenital abnormalities of the pulmonary veins. Cas. lek. cesk.
93 no.31-32:864-868 6 Aug 54.

1. IV. interni klinika. Prednosta prof. Dr Bohumil Prusik (for Krcilek,
Skop) 2. Plicni klinika. Prednosta prof. Dr Jaroslav Jedlicka (for
Levinsky) 3. IV. detska klinika. Prednosta prof. Dr Fr Blazek
(for Krcilkova)

(VEINS, PULMONARY, abnormalities)

(ABNORMALITIES,

pulm. veins.)

SKOP, V., MUDr; SKOREPA, J., MUDr

Disc-like supradiaphragmatic atelectases. Cesk.roentg. 9 no.2:
72-75 June 55.

1. Ze IV. interni kliniky KU. Prednosta prof. MUDr Boh. Prusik
(ATELECTASIS
basal, linear, x-ray diag.)

SKOP, Vaclav, MUDr; TEICHMANN, Vladimir, MUDr

Aortographic picture of Grawitz tumor of the kidney. Cesk. rentg.
9 no.4:148-151 Nov 55.

1. Z IV. interni kliniky KU. Prednosta prof. MUDr Boh. Prusik.
- Z. II. interni kliniky KU, prednosta prof. MUDr A.Vancura.
 - (AORTA, radiography,
in kidney Grawitz tumor)
 - (ANGIOGRAPHY,
aortography in kidney Grawitz tumor)
 - (KIDNEYS, neoplasms,
grawitz tumor, aortography in)

KRČILEK, A., MUDr.; SKOP, V., MUDr.

Phlebographic investigation of chronic diseases of the veins of the lower extremities. Acta radiol. cancer bohem. 10 no.1:6-10 Mar 1956.

1. Ze IV. interní kliniky KU (přednosta prof. MUDr Boh. Prusík)
MUDr. F.Macháček. z chir. odd nemocnice v Benešově.

(ANGIOGRAPHY

phlebography in dis. of veins of legs)

(LEG, blood supply

phlebography in dis. of veins)

SKOP, Vaclav, As., dr.; VANOUSOVA, Eva, MUDr.

Roentgen-ray aspects of the lungs in advances mitral stenosis.
Cas. lek. cesk. 95 no.25-26:671-673 29 June 56.

1. Ze IV. interni kliniky KU. Pred. prof. MUDr. Boh. Prusik
V.S., Praha-Mala Strana, Rici 10.

(MITRAL STENOSIS, pathol.

lungs, x-ray aspects (Cz))

(LUNGS, in various dis.

mitral stenosis, x-ray aspects (Cz))

KRCILEK, Antonin, As., Dr.; NEUMANN, Jiri, as., Dr.; SKOP, Vaclav, as., Dr.

Pulmonary stenosis with closure of interventricular septum;
clinical and x-ray aspects. Cas. lek. cesk. 95 no.25-26:673-
677 29 June 56.

1. IV. interni klinika KU. A.K., Praha XII., Kourimska 3.
(PULMONARY STENOSIS, compl.
closure of interventric. septum, clin. & x-ray aspects.
(Cz))

SKOP, V.; PETRIKOVA, J.; LEVINSKY, L.

Contribution to angiographic investigations on anomalies of the
pulmonary arteries and veins. Cesk. rentg. 13 no.4:213-219 Aug 59

1. IV. interni klinika (prednosta prof. dr. B. Prusik) a plicni
klinika KU (prednosta prof. dr. J. Jedlicka)
(PULMONARY ARTERY, abnorm.) (PULMONARY VEINS, abnorm.)
(ANGIOGRAPHY)

SKOP, V.

Experiences with iodide and triiodide contrast media in 500 angiocardigraphies. Cesk. rentg. 13 no.4:257-261 Aug 59

1. IV. interni klinika KU, prednosta prof. MUDr. Boh. Prusik.
(IODIZED OILS) (ANGIOCARDIOGRAPHY)

SKOP, Vaclav; SOUCKOVA, Eva

Calcifications of the cardiac skeleton and valves. Cesk. rentg.
14 no.2:83-89 Ap '60.

1. IV. interni klinika KU prednosta prof. MUDr. Boh. Prusik.
(HEART DISEASES radiogr.)
(CALCIFICATION radiogr.)

SKOP, V.; KRCILEK, A.

Evidence of insufficient perforating veins of the leg. Cas.lek.cesk
100 no.22:678-681 2 Je '61.

1. IV. interni klinika KU v Praze, prednosta prof. MUDr. M. Fucik.

(VASCULAR DISEASES PERIPHERAL diag)

1/1

ELISKA, O.; SKOP. V.

Effect of stenosis of the renal artery on the development of
exorenal circulation in dogs and man. Cesk. rentgen. 18 no.4:
217-228 JI'64

1. Anatomicky ustav (prednosta: prof. dr. L. Borovansky)
a IV. interni klinika (prednosta: prof. dr. M. Fucik) fak.
vseobecneho lekarstvi KU [Karlovy university] v Praze.

SKOP, V.; ELISKA, G.; KACL, J.

The angiological picture of the circulus exorenalis. Cor vasa
7 no.4:311-314 '65.

1. The IVth Clinic of Internal Medicine and the Institute of
Anatomy, Caroline University, Prague, Czechoslovakia.

FRYMOVA, A.; BUDINOVA-SMELA, J.; KACL, J.; VANCURA, V.; SKOP, V.

On the problem of angiospasm in cerebral arteries. Cas. lek.
Cesk. 105 no.2:33-37 14 Ja '66.

1. Oddeleni pro cevni nemoci mozku, Praha-Krc (vedouci doc. dr.
J. Budinova-Smela, CSc.) a Radiologicka klinika fakulty vse-
obecneho lekarstvi Karlovy University, Praha (prednosta prof.
dr. V. Svab, DrSc.).

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 3,
p 208 (USSR) 15-57-3-3981

AUTHOR: Skopa, A. M.

TITLE: Dust Contamination of the Air During Bore Hole Drilling
(Zapylennost' vozdukha pri burenii shpurov)

PERIODICAL: Sb. nauch, tr. Magnitogor. gorno-metallurg. in-t,
1955, Nr 9, pp 51-57

ABSTRACT: Bibliographic entry

Card 1/1

SKOPAKOV, Khr.

Differences between extremities in left handed and right handed subjects. Nauch. tr. Med. akad. Chervenkov, Sofia 1 no.1:69-92 1953.

1. Predstavena ot prof. D.Kadanov, zavezhdashch Katedrata po anatomia na choveka.

(ARM,

assymetry, relation to left & right handedness)

(HANDEDNESS,

left & right, relation to assymetry of extremities)

SKOPANOV, III.

"Dexterity and use of the upper limbs in various types of work; the problem of righthandedness

(p. 45) PRIRODA

(Bulgarska Akademia Na Naukite) Sofiya Vol 2 NO 6 Nov/Dec 1953

SO: East European Accessions List Vol 2 No 6 Aug 1954

SKOPAKOV, Khr, Sl., st. asistent

Normal and typical anatomy. Khirurgiia 6 no.10:630-635 1953

1. Meditsinska Akademiia "V.Chervenkov," Sofiia. Katedra po anatomia na choveka. Zavezhdashch: prof. D.Kadanov.

(ANATOMY.

*normal)

BULGARIA / Human and Animal Morphology (Normal and .
Pathological). Arterio-Vascular
System: Vessels

S

Abs Jour : Ref. Zhur - Biologiya, No. 3, 1959, 12324

Author : Skopakov, Khr.

Inst :

Title : On Variability of the Origins of the Main Branches
of a. a. Axillaris et brachialis.

Orig Pub : Nauchni tr. Vissh. med. in-t "V. Chervenkov".
Eksperim.-teor. katedri, 1954 (1956), 1, No. 2,
161-174

Abstract : The study of 343 upper extremities showed that
a. subscapularis in 67.1% of the cases, a. circum-
flexa humeri dorsalis in 53.1%, a. profunda
brachii in 68.2% and a. collateralis ulnaris
proximalis in 85.1% of the cases depart independ-

Card 1/3

SKOPAKOV, Khr.

Variability of the vertebral artery. Khirurgiia, Sofia 7 no.6:
363-368 1954.

1. Meditsinska Akademiia V.Chervenkov, Sofia. Katedra po anatomia
na choveka. Zavezhdashch: prof. D.Kadanov.
(ARTERIES, VERTEBRAL, anatomy and histology,
variations)

SKOPAKOV, KH.

GDR/Human and Animal Morphology - (Normal and Pathological)
Nervous System. Central Nervous System

S

Abs Jour : Ref Zhur Biol., No 6, 1959, 26098

Author : Skopakoff, Christo

Inst : -

Title : Nerve Fibers and Endings in Dental Granulomas

Orig Pub : Dtsch. Stomatol., 1958, 8, No 4, 206-212

Abstract : The material from 36 periapical and 18 marginal granulomas was impregnated according to Bilshovsky-Gross with application of pyridine. In newly-formed granulomas the nerve fibers are thin, nonmyelinated, have a normal appearance and end freely. In accordance with reopening of granuloma the nerve fibers, particularly in the capsule, myelinate. Their path becomes tortuous; plexuses of nerve fibers form. The endings (receptory) are found in ripe granulomas but rarely, and only in the peripheral layer. Pathological changes of fibers consist in increase

card 1/2

SKOPAKOV, Kh.S. (Bolgariya, Sofiya, bul'v. Stalina, d.72)

Experimental morphological studies on the maxillo-dental blood supply following bilateral section of the inferior alveolar and maxillary arteries. Arkh. anat. gist. i embr. 36, no.4:67-70
Ap '59. (MIRA 12:7)

1. Kafedra anatomii im. V.P. Vorob'yeva (zav. - chlen-korrespondent Bolgarskoy AN [Bolgarska Akademiya na naukite] prof. D. Kadanov) meditsinskogo instituta v Sofii, Bolgariya.

(ARTERIES, MAXILLARY, physiol.

eff. of bilateral section of alveolar & maxillary arteries on maxillo-dental blood supply (Rus))

(JAWS, blood supply,
same)

SKOPAKOV, Khr.,

Morphological and experimental studies on the arterial blood supply to the jaws. Nauch. tr. vissh. med. inst. Sofia 39 no.1:37-51 '60.

1. Predstavena ot prof. D. Kadanov, zav. Katedrata po anatomia na choveka.

(JAWS blood supply)

SKOPAKOV, Khr.

Changes in the arterial blood supply of the jaws and teeth
due to aa. alveolaris inferior, maxillaris et mentales.. Izv
Inst morf BAN no.5:113-117 '62.

SKOPAKOV, H.

Changes in the development of the maxilla and in cutting of
the permanent teeth in dogs with altered blood supply. Nauch.
tr. vissh. med. inst. Sofia 42 no.4:97-104 '63

1. Aus dem Anatomischen Institut des Medizinischen Institutes
in Sofia; Direktor: Prof.D.Kadanov.

*

SKOPAKOV, Kh.

Study of the replacement of milk teeth and the growth of permanent teeth following dissection of n. and a. alveolaris inferior.

Ark. anat., gist. i embr. 49 no.9:59-64 S '65.

(MIRA 18:12)

1. Sektsiya anatomii i antropologii (rukovoditel' - chlen-korrespondent Bolgarskoy AN prof. D.Kadanov) Instituta morfologii Bolgarskoy AN. Submitted June 15, 1964.

SKOPAL, J., MUDr.; VOJTY, O., UDr.

Problems of stand-by services in gynecological and obstetrical departments. Čas. zdrav. 15 no.3:147-150 Mr '65

1. Ředitel Úvodního ústavu národního zdraví v Bruntale (for Skopal). 2. Ředitel a ředitelka Úvodního ústavu národního zdraví v Bruntale (for Vojty).

1(2)

PHASE I BOOK EXPLOITATION

CZECH/3261

Skopal, Jan, Lieutenant-Colonel; Jan Kadlec, Engineer; Jindřich Hanzal, Doctor; and Karl Helmich, Doctor

Rozpoznávání letadel (Aircraft Recognition) 2d ed., enl. Praha, Naše vojsko, 1958. 433 p. (Series: Knížnice letectví, sv. 19) 15,000 copies printed.

Ed.: Karel Zelený.

PURPOSE: The book is intended for military personnel and others interested in aircraft recognition.

COVERAGE: The book is divided into three parts: a general part, treating the development of aviation and the organization the air forces of the Western countries; a part on the method of identification; and a special part, containing photographs and diagrams for a kind of Czech counterpart to the Observer's Book on Aircraft, identifying aircraft of various countries, with a chapter on Soviet aircraft. The following Soviet aircraft are included, with specifications, silhouettes, photographs, and/or diagrams: fighters (MIG-15, MIG-17, MIG-19, Sukhoy 3, Yak-25), bombers (Il-28, Tu-16, Tu-Molot, Tu-20), light transport aircraft (Il-12, Il-14, An-8 "flying whale"), heavy transport aircraft

Card 1/5

CZECH/3261

Aircraft Recognition

(Tu-104, Tu-110, An-10 "Ukraina", Il-18 "Moskva", Tu-114 "Rossiya"), training and utility aircraft (An-2 multi-purpose, An-14 "Pchëlka" multi-purpose, Yak-11 trainer, Yak-12 trainer, Yak-18 trainer), helicopters (Ka-18 liason and transport craft; Mi-1 liason, sanitary and training craft; Mi-4 medium transport craft; Mi-6 heavy transport craft; Yak-24 "flying tandem"). The specifications also include data on possible misidentifications of some aircraft. In the introductory sections on identifying features and recognition, the author concentrates mainly on Western aircraft. There are numerous figures, among them a few photographs with data on Soviet missiles paraded on Red Square in Moscow in 1957, (pp 104-106).

TABLE OF CONTENTS:

GENERAL PART

Ch. 1. History of Flying

- I. A historical outline of flying
- II. Survey of the development of military aviation in 1912-1922
- III. Aviation and military science; preparations for World War II
- IV. World War II and aviation
- V. Lessons from World War II

7
7
9
14
19
43

Card 2/5

CZECH/3261

Aircraft Recognition

| | |
|--|----|
| Ch. 2. Air Force Organization | |
| I. Organizational set-up of the US Air Force and the air forces of other capitalist countries | 45 |
| II. Main air commands and sub-divisions of the US Air Force and the air forces of other capitalist countries | 47 |
| Ch. 3. Equipment and Armament of Military Aircraft of Capitalist Countries | 58 |

IDENTIFICATION METHOD

| | |
|---|----|
| Ch. 4. Classification of Aircraft by Type and Their Description | 67 |
| I. Aircraft in general | 72 |
| II. Gyroplanes | 84 |
| III. Helicopters | 84 |
| IV. VTOL | 85 |
| V. Pilotless combat craft [rockets, missiles] | 90 |

Card 3/5

CZECH/3261

Aircraft Recognition

| | |
|--|-----|
| | 109 |
| Ch. 5. Aircraft Recognition | 109 |
| I. Importance of aircraft recognition | 111 |
| II. Possible ways of recognition | 112 |
| III. Identifying features of aircraft | 114 |
| A. Wings | 117 |
| B. Engines | 121 |
| C. Tail assembly | 124 |
| D. Identifying features underneath | 124 |
| E. Fuselage | 125 |
| IV. Some special types of aircraft | 125 |
| V. Markings of aircraft | 127 |
| VI. Typical markings of military aircraft of Western countries | 138 |
| Ch. 6. Training for Recognition | |
| Card 4/5 | |

SKOPAL, Jan

Trends in the development of fine mechanics and optics. ~~Jenna~~
mech opt 8 no. 1-2 Ja '63.

SKOPAL, J., inz.

Automation and control of cement clinker firing equipment.
Stavivo 42 no. 3:94-96 Mr '64.

1. Prerovske strojirny National Enterprise, Prerov.

SKOPAL, J., inz.

Some sensors for rotary cement kiln automation. Stavivo 42
no.5:165-167 My '64.

1. Prerovske strojirny National Enterprise, Prerov.

SECRET

1. The following information was obtained from a source who has provided reliable information in the past and is being provided to you for your information.

FAJC, Jan; SKOPAL, Jaromir

Looking for a producer! Tech praca 16 no.12:981-982 D '64.

1. Research and Testing Institute of Aeronautics, Letnany.

L 42257-66

ACC NR: AP6031491

SOURCE CODE: CZ/0008/66/000/004/0537/0538

AUTHOR: Kalab, Vladimir; Skopal, Jan

ORG: W. Pieck Chemical Works n.p., Zilina (Chemicke zavody W. Piecka, n.p., zavod Zilina)

TITLE: Filtration¹insert

SOURCE: Chemicke listy, no. 4, 1966, 537-538

TOPIC TAGS: filtration, polymethylmethacrylate, chemical laboratory apparatus

ABSTRACT: The authors suggest an improvement of the Buchner funnel generally used in analytical chemistry. In a Buchner funnel the filtration is rather slow because the liquid flows through the capillaries of the filter medium only where the paper is in contact with the openings of the funnel. The authors designed a ring made in polymethylmethacrylate 4 mm thick provided with 14 openings with a 19 mm diameter. This insert is located between the paper and the Buchner funnel. In an experiment with caprolactam the filtration time was cut by the insert from 21 minutes to 1 minute. Orig. art. has: 2 figures. [JPRS: 36,464]

SUB CODE: 07 / SUBM DATE: 30Jun65 / ORIG REF: 002 / OTH REF: 001

Cord 1/1 *fdh*

0918 2772

SKOPAL, J. V.

✓ Towards Greater Economies in the Performance of Soaking
Pits having Refractory Recuperators. J. V. Skopal. (Hutník,
Prague), 1985, 5, (12), 354-358. [In Czech]. On the basis
of a performance analysis a greater thermal efficiency of
refractory recuperators used in Czechoslovakia is shown to
be attainable if recuperator lining materials of higher quality
were used, the diameter of the recuperator tubes was changed,
and carborundum tubes were introduced. —P. V.

SKOPAL, Vladimir

Operational experience with cast iron melting in basic cupola.
Slevarenstvi 10 no.11:440-441 N '62.

1. Sigma Olomouc, Zelezarny Petra Bezruce.

SKOPALIK, J.

Eosinophilic granuloma of the stomach. Rozhl. chir. 42 no.4:
278-281 Ap '63.

1. Chirurgické oddelení nemocnice v Caslavi, vedoucí MUDr.
R. Pribyl.

(EOSINOPHILIC GRANULOMA)
(GASTRECTOMY)
(STOMACH DISEASES)

VRESTAL, J., prof. inz. dr. CSc.; HAVIR, J., inz. CSc.;
SKOPALIK, J., inz.

Deactivation of surface waters. Vodni hosp 14 no.4:139-
141 '64.

1. Antonin Zapotocky Military Academy, Brno.

APLTAUER, J.; SKOPALIKOVA, O.

Influence of green manuring on soil microflora. Rost vyroba
9 no. 7/8:764-767 JI-Ag '63.

1. Ustredni vyzkumny ustav rostlinne vyroby, oddeleni
mikrobiologie, Ruzyne.

SKOPAROV, I.

Effective kind of technical propaganda. Avt.dor. 28
no.8:31 Ag '65. (MIRA 18:11)

SKOPAROV, I.Ya., inzh.

In the forefront of the group. Avt. dor. 27 no. 3:10 Mr '64.
(MIRA 17:5)

FRUMKIN, N.B.; SKOPAROV, I.Ya.

Unify the efforts in constructing local roads. Avt. dor.
no.10:20-21 O '64. (MIRA 17:12)

1. Starshiy inzh. otдела mestnykh dorog Glavnogo upravleniya
shosseynykh dorog pri Sovete Ministrov BSSSR (for Frumkin).

SKOPAROV, I.Ya.

An outstanding innovator. Avt.dor. 28 no.3:12 Mr '65.

(MIRA 18:5)

SKOPCHENKO, G. A.

GRZHIVO, V.S., kandiatskii tekhnicheskikh nauk; NEMETS, S.M., starshii nauchnyi
sotrudnik; VAL'TER, L.Ya., mladshii nauchnyi sotrudnik; SKOPCHENKO,
G.A., mladshii nauchnyi sotrudnik.

Nutritive value of canned foods. Trudy VNIIEP no.3:55-61 '54.

(MLRA 9:8)

(Food, Canned)

GRZHIVO, V.S., kandidat tekhnicheskikh nauk; HEMETS, S.M., starshiy nauchnyy sotrudnik; VAL'TER, L.Ya., mladshiy nauchnyy sotrudnik; SKOPCHENKO, G.A., mladshiy nauchnyy sotrudnik.

Chemical changes in tomatoes during processing. Trudy VNIIP no.3:
88-99 '54. (MLRA 9:8)

(Tomatoes) (Food--Analysis)

NAMESTNIKOV, A.F., kandidat tekhnicheskikh nauk.; RABINER, N.Ya., kandidat tekhnicheskikh nauk.; SKOPCHENKO, G.A., starshiy nauchnyy sotrudnik.; KHARIN, Yu. S., mladshiy nauchnyy sotrudnik.; KOKOSHINSKAYA, V.T., mladshiy nauchnyy sotrudnik.

New varieties of canned vegetable appetizers. Ref. nauch. rab. VNIKOP
no.3:3-6 '55. (MIRA 9:11)
(Vegetables)

KOTLYAR, I.Kh., kandidat tekhnicheskikh nauk.; KOCHETOVA, L.T., starshiy nauchnyy sotrudnik.; SKOPCHENKO, G.A., starshiy nauchnyy sotrudnik.; SYCHEVA, M.Ye., mladshiy nauchnyy sotrudnik.

Change in quality of canned baby foods during storage. Ref. nauch.
rab. VNIKOP no.3:22-27 '55. (MLRA 9:11)
(food, Canned--Storage) (food--Bacteriology)

TACHOVSKA, M.; CIPEROVA, V.; SKOPCOVA, B.

Experience with the treatment of the sequelae of poliomyelitis by the Kenny method. Rev. czech. med. 9 no.1:18-30 '63.

1. Department for the Treatment of the Sequelae of Poliomyelitis,
Thomayer Hospital, Praha Director: M. Tachovska, M.D.
(POLIOMYELITIS) (REHABILITATION) (THERAPEUTICS)
(HEAT)

TACHOVSKA, M.; CIPEROVA, V.; SKOPCOVA, B.

Our experiences with the treatment of poliomyelitis using the Sister Kenny method. Cesk. pediat. 18 no.6:500-507 Je '63.

1. Oddeleni pro lecení následku po dětské obrně Thomayerovy
nemocnice v Praze, vedoucí MUDr. M. Tachovská.
(POLIOMYELITIS) (REHABILITATION)

SKOPCOVA, J.

MACHACEK, M.; SKOPCOVA, J.

Cyst of greater omentum caused by sudden abdominal trauma. Rozhl. chir.
37 no.2:140-142 Feb 58.

1. Chirurgické a dětské oddělení nemocnice Benesov u Prahy, přednosta
doc. Dr. Furst a Dr. V. Petricek. M.M., Pisek, Raisova 1387.

(OMENTUM, cysts

traum., of greater omentum in child, surg. (Cs))

11-155-86

ENCLOSURE 10/10/63

S/271/63/000/004/013/045

AUTHOR: Masek, Milos and Skopek, Jaroslav

TITLE: A time-delay relay based on a magnetic amplifier

PERIODICAL: Referativnyy zhurnal, Avtomatika, telemekhanika i vychislitel'naya tekhnika, no. 4, 1963, 17, abstract 4A103 (Czechosl. pat., kl. 2lg, 4/05, no. 101724, 15.11.61)

TEXT: The text describes a patent for a time-delay relay consisting of a magnetic amplifier with internal and external feedbacks, and the usual neutral relay. The control winding is joined in series with the circuit and shunted by a variable resistance. The control contact is joined in parallel with the circuit. The second variable resistance is joined with the path of the displacement winding. Both variable resistances, within broad limits, alter the delay of the relay. One of the contacts of the relay may be joined to serve as a control contact; this guarantees the generation of pulses with assigned interval. There is one illustration. M. Ts.

[Abstracter's note: Complete translation]

Card 1/1

SKOPEK, J.

SKOPEK, J. Determining clay minerals by the colorimetric method. p. 518,
Vol 5, no6, 1956 SOVETSKA VEDA: STAVEBNICTVI
Praha, Czechoslovakia

SOURCE: EAST EUROPEAN ACCESSIONS LIST (EEAL) VOL 6 NO 4 APRIL 1957

SKOPEK, J.

Experiences with the foundation of buildings on soils with a low carrying capacity in Peking. p. 283.

(Inzenyrske Stavby. Vol. 5, no. 6, June 1957. Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957. Uncl.

SKOPEK, J. ; VACHOTA, Z.

Calculation of the setting of building foundations with respect to the rigidity of the structure.

P. 62. (INZENYRSKE STAVBY) (Praha, Czechoslovakia) Vol. 6, No. 2, Feb. 1957

SO: Monthly Index of East European Accession (EEAI) LC Vol. 7, No. 5, May 1958

SKOPEK, J.

Recent building foundation methods used in the USSR. P. 401

INZENYRSKE STAVBY. (Ministerstvo stavebnictvi) Praha, Czechoslovakia.
Vol. 7, no. 11, Nov. 1959

Monthly list of East European Accessions (EEAI) LC, vol. 9, no. 1,
Jan. 1960

Uncl.

SKOPEK, Jiri, inz., C.Sc.

Determining the strength of minerals on specimens of irregular shape. Inz stavby 10 no.1:31 Ja '62.

SKOPEK, Jiri, inz., C. Sc.

Stability of mast anchoring slabs. Inz stavby 10 no. 2:49-52 F '62.

1. Geologicky pruzkum, n.p., laborator mechaniky zemin, Praha.

SKOPEK, J., inz., C.Sc.

1962 Conference on Soil Mechanics. Inz stavby 11 no.1:39-40
Ja '63.

SKOPEK, Jiri, inz., kandidat technickych ved

Determining the modulus of compressibility by loading test. Geol
pruzkum 5 no.3:85 Mr '63.

1. Geologicky pruzkum, n.p., Praha.

SKOPEK, Jiri, inz. CSc.

Tables of foundation settling. Poz stavby 11 no.11:611 '63.

1. Zavod stavebni geologie, Praha.

SKORAK, Jiri, inz. CSc.

Earth index values. Vedni hosp 11 no. 5:194 '64.

SKOPEK, J., inz. CSc.

International conference on soil mechanics and foundations
engineering. Inz stavby 12 no. 2: 86-87 F '64.

1. Zavod stavebni geologie, Praha.

SPOLSK. J. J. Inz.

removal of water from the guide blades of steam turbines.
Strojirenski 11 no.11:828-833 N '64.

1. Vysoká škola of Mechanical and Electrical Engineering, Plzen.

L 62066-65 EPR/EPA(bb)-2/T-2/EWP(f)

ACCESSION NR: AP5019255

CZ/0032/64/014/011/0828/0833

AUTHOR: Skopek, J. (Engineer)

TITLE: Removing water from the stationary blades of steam turbines

SOURCE: Strojirenstvi, v. 14, no. 11, 1964, 828-833

TOPIC TAGS: steam turbine, turbine blade, turbine stage, propulsion engineering, mechanical engineering

Abstract: /author's Czech summary/ A new method is described for removing water from stationary blades in turbine stages operating in the wet steam range. The new solution is based on the assumption that the stationary blades of the stage can be regarded as a suitable water separator operating on the same principle as the separators currently used in various branches of industry. The results obtained in the experimental verification of the theoretical considerations are presented. The new method of removing the water has a number of advantages over the present methods in terms of efficiency and economy of operation.

Orig. art. has: 10 figures, 1 graph, 3 tables.

Card 1/2

L 62066-65

ACCESSION NR: AP5019255

ASSOCIATION: Vysoka skola strojni a elektrotechnicka, Plzen (Advanced School of Mechanical and Electrical Engineering)

SUBMITTED: 00

ENCL: 00

SUB CODE: PR

NR REF SOV: 005

OTHER: 0099

JPRS

lyp
Card

2/2

SKOPEX, Karol, inz.

The new in palletization in Czechoslovakia. Tech praca 17 no.2:
94-96 F '65.

1. Institute of Development of Utility Engineering Products,
Piestany.

SK PFK, L.

Accident rate in the glass and fine ceramic industries. p. 278

SKLAR A KEPA TK (Ministrestvo lehkeho prumyslu), Vol. 6, No. 11, Nov. 1956

Praha, Czechoslovakia

SOURCE: East European List (EEL) Library of
Congress, Vol. 6, No. 1, January 1957

SKOPEK, S.

"Activities of the Research Institute of Plant Production in Ruzyně."

p. 277 (Vestník, Vol. 5, no. 5, 1958, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, no. 9,
September 1958

SKOPEK, S.

AGRICULTURE

Periodical VESTNIK. Vol. 5, no. 11, 1958.

SKOPEK, S. Aiding collective farms by means of a consultation service. p. 622.

Monthly List of East European Accessions (EMAI) LC, Vol. 8, no. 3, March, 1959. Uncl.

SKOPEK, S.

AGRICULTURE

PERIODICAL: VESTNIK, VOL. 6, No. 1, 1959

Skopek, S.; Jenicek, V. New scientific discoveries will help
to raise collective-farm production p. 31.

Monthly List of East European Accessions (EEAI) LC Vol. 8, no. 5
May 1959, Unclass.

AUTHOR: Vaclav Skopek

TITLE: "RPA Switchboard, Additional Automation for the Control of
Small Power Plants With Diesel Engine"

SOURCE: Praha, Automatizace, Vol IV, No 8 (Aug 61) pp 239

DESCRIPTION: Technical Description of a supplementary switchboard for
the automatic operation of small power plants with Diesel drive; deve-
loped by Veltechna, in Cakovice.

Mathematical Reviews
Vol. 15 No. 3
March 1954
Geometry

*Skopec, Z. A. Cyclographic mapping of Lobachevskii space. Sto dvadcat' pyat' let neevklidovoi geometrii Lobachevskogo, 1826-1951 [One hundred and twenty-five years of the non-Euclidean geometry of Lobachevskii, 1826-1951], pp. 129-150. Gosudarstv. Izdat. Tehn.-Teor. Lit., Moscow-Leningrad, 1952. 7.60 rubles.

The space of Lobachevskii is divided by a plane π , the image plane, into two separate regions. To every plane σ belongs another plane σ' symmetrical with respect to π . The plane σ can be divergent from π , parallel to π , or intersect π . When σ is divergent, then it is possible to associate to it in a one-to-one way an oriented cycle of π ; the radius r of this cycle is related to the shortest distance of π and σ by the equation $\Pi(h) + \Pi(r) = \pi/2$, the center of the cycle is at the foot of the common perpendicular. The same circumference with opposite sense serves as an image to σ' . When σ is parallel to π the one-to-one correspondence is performed by means of an oriented horicycle obtained by intersecting π with the equidistant surface to σ of altitude h where $\Pi(h) = \pi/4$. In the case that σ intersects π in a line b at acute angle φ the image of σ consists of the oriented equidistant curves to b at distance m , where $\Pi(m) = \varphi$. These curves consist of one positively and one negatively oriented branch. When $\varphi \rightarrow \pi/2$, then $m \rightarrow 0$ and the image is the line b with double orientation. This correspondence is called the cyclometric mapping of the space on the plane π . Under it a line, considered as the support of a plane pencil, passes into the common chord of a pencil of equally oriented

(over)

Skopeo, Z. A. 2/1

cycles. Two perpendicular lines in a plane pass through each other's pole with respect to the cycle-image of the plane. Of the many other properties of the cyclometric mapping we mention that if two intersecting planes are mapped into two cycles, their angle is equal to the angle of the cycles.

D. J. Struth (Cambridge, Mass.)

7-9-54

LL

Mathematical Reviews
Vol. 14 No. 7
July - August 1953
Geometry

✓
✓
Pozenfel'd, B. A., and Skopec, Z. A. Quadratic Cremona
transformations in the plane and complex numbers.
Doklady Akad. Nauk SSSR (N.S.) 83, 801-804 (1952).
(Russian)

math
5

8-9-54 LL

Es ist bekannt, dass man die quadratischen Transfor-
mationen der projektiven Ebene E mit einem reellen und 2
konjugiert komplexen Fundamentalpunkten auch als ge-
trochene lineare Transformationen schreiben kann, wenn
man nur F in geeigneter Weise als komplexe Zahlenebene
umdeutet. Verfasser zeigt, dass man auch die anderen Typen
reeller quadratischen Verwandtschaften in E als getrochene
lineare Transformationen in einer geeigneten Algebra
schreiben kann. Als solche tritt bei den Transformationen
mit 3 reellen getrennten Fixpunkten das System $z = a + be$
($e^2 = +1$, a, b reell) und bei denen mit zusammenfallenden
Fixpunkten das System $z = a + be$ ($e^2 = 0$) auf. Analog wie
beim ersten Fall lassen sich dann auch diese Abbildungen als
Produkte geeigneter Inversionen erklären. W. Burau.

S. SKOPEC, Z. A.

1/2

Skopec, Z. A. Certain types of plane and skew quadrilaterals in Lobachevskii space. *Uspehi Matem. Nauk* (N.S.) 9, no. 2(60), 179-183 (1954). (Russian)

There are three types of quadrilaterals in the Lobachevskii plane with proper vertices: convex, concave and self-intersecting ones (degenerate if one of the angles becomes zero or 180°). Attention is drawn to such (plane or skew) quadrilaterals for which (a) the sum of two adjacent sides is equal to the sum of the two other adjacent sides (quadrilaterals of the first kind), (b) the sum of two opposite sides is equal to the sum of the two other opposite sides (quadrilaterals of the second kind). Among the plane quadrilaterals of the first kind all three types exist, whereas among those of the second kind there are no self-intersecting ones. Two

SKOPENKO, A. I.

USSR/Physics - Photoconductivity

11 Oct 51

"Photoresistances of CdS Monocrystals and Their Photoactivation," V. Ye. Lashkarev, Acting Mem, Acad Sci Ukrainian SSR, V. S. Medvedev, A. I. Skopenko, G. A. Fedorus, M. K. Sheynkman, Inst of Phys, Acad Sci USSR

"Dok Ak Nauk SSSR" Vol 86, No 5, pp 905-907

At 7th Conference of Semiconductors in 1950 (cf. Lashkarev et al., "Iz AN SSSR, Ser Fiz" 16, 81 (1952) Photoactivity of CdS monocrystals was reported activated by light. Show that photoresistance of CdS is only one exhibiting, in addition to high sensitivity, practically horizontal spectral characteristics within band 0.4 to 0.2 μ . Received 5 Aug 52

PA 245T94

SKOPENKO, A. I.

537.312.5

USSR.

2440. Photoconductivity of CdS monocrystals and its enhancement by added illumination. V. E. LASHKAREV, V. C. MEDVEDEV, A. I. SKOPENKO, G. A. FEDORUS AND M. K. SHEINKMAN. *Dokl. Akad. Nauk SSSR*, 86, No. 5, 905-7 (1952). *Russian*.

Attention called to phenomenon of enhancement of sensitivity of CdS in 1950. Present work investigates spectral distribution of effects with combined pulsed light and steady light. Diagram given to illustrate spectral sensitivity both with constant wavelength of steady light (in fundamental band 5050 Å) and with constant wavelength of pulsed light. Claimed that experiments permit rejection of idea that observed decrease of sensitivity towards shorter wavelengths due to creation of large numbers of carriers; and hence to larger rate of recombination. If so then adding constant illumination to pulsed light could only reduce sensitivity instead of increasing it 100 to 1000 times as it does. Shown that in region 4000 Å to 2400 Å CdS crystals have constant quantum efficiency. Using W lamp the sensitivity is 35-50 mA/L/V. The linear response extends to currents of up to 100 µA (with 100 V). Dark resistance 10^{13} ohms. Light/dark resistance = 10^{-6} . Fatigue inappreciable in visible and u.v. Large crystals 10 to 600 times more sensitive than very small ones described by Kolumets (Abstr. 5473 (1953)).

EB JH

ALEKSEYEV, K.A.; VOL'SKIY, B.T.; SKOPENKO, A.I., redaktor; GOLOVCHENKO, G.I.,
tekhnicheskiiy redaktor.

[Regulation and tuning of television sets] Regulirovka i nastroiika
televizorov. Kiev, Gos. izd-vo tekhn. lit-ry USSR, 1954. 63 p.
(Television--Receivers and reception) (MLRA 8:2)

KOSENKO, Viktor Yefimovich; SKOPENKO, Aleksandr Ivanovich; PISARENKO, M.,
redaktor; NOVIK, A., tekhnichnyi redaktor

[Semiconductors] Napivprovidnyky. Kyiv, Derzh. vyd-vo tekhn. lit-ry
URSR, 1956. 83 p. (MLRA 10:4)
(Semiconductors)

SKOPENKO, A.I.

109-9-14/15

AUTHOR: Skopenko, A.I.

TITLE: Investigation of the Transient Processes in Point Contact Germanium Transistors (Issledovaniye perekhodnykh protsessov v germaniyevykh tochechnykh triodakh)

PERIODICAL: Radiotekhnika i Elektronika, 1957, Vol.II, Nr 9, pp.1210 - 1220 (USSR)

ABSTRACT: A point contact germanium transistor was connected as a grounded-base amplifier and positive going rectangular pulses having a rise time of $0.1 \mu s$ and a fall time of $0.15 \mu s$ were applied to its emitter through a diode and a $10 k\Omega$ resistor. The output pulses were measured across a 200Ω resistor by means of an oscilloscope (see Fig.1). The measured transistors consisted of 0.2 mm n-type germanium plates, having a resistivity of 2 to $3 \Omega \cdot \text{cm}$ which were fitted with 2 point contacts, the spacing between which could be varied. Two types of measurement were carried out. The first type of measurement was done at emitter currents lower than a certain critical value, I_{exp} , in which case there was no delay between the end of the input pulse and the end of the output pulse. Response of a point contact transistor for this case

Card 1/4

109-9-14/15

Investigation of the Transient Processes in Point Contact Germanium Transistors.

is characterised by a rise time, t_H and a decay time, t_C . The values of t_H and t_C were measured for transistors with various electrode spacings ($l = 40$ up to 120μ) and various minority carrier lifetimes, τ_{06} (τ_{06} was measured by the photoelectric method). The results are shown in Table I, p.1212. From this it is seen that for small spacings between the electrodes, t_H and t_C are practically independent of τ_{06} but at $l = 120 \mu$ they increase with increasing τ_{06} . For emitter currents greater than I_{KP} the response of the transistor is such that the output pulse may be considerably longer than the input pulse (see Figs.3). It was found that the delay time of the pulse t_3 (which is the time between the end of the input pulse and the beginning of the decay of the output pulse) increases with increasing emitter currents and with increasing τ_{06} . Theoretically the relationship between t_3 and the effective lifetime of

Card 2/4 the minority carriers is given by:

109-9-14/15

Investigation of the Transient Processes in Point Contact Germanium Transistors.

$$\alpha(I_e) \approx \text{const} \quad t_{3c} \approx \tau \ln \frac{\alpha I_e R_K}{E_K}, \quad \text{where } \alpha \text{ is the}$$

current amplification factor, I_e is the emitter current, R_K is the collector resistance and E_K is the collector supply voltage. It is therefore possible to determine τ by measuring t_{3c} for a transistor. A similar investigation was carried out for a grounded-emitter transistor circuit (see Fig.4). It was found that in this case the response of the transistor has a negative "spike" and a comparatively long rise time, while its decay time is comparatively short (see Figs.7 and 8). On the whole it was found that the positive "spike" and the rise time decrease with decreasing life times of the minority carriers. The author thanks the member of the Soviet Academy of Sciences of the Ukrainian Soviet Republic, V.Ye Lashkarev, also Ye.G.Miselyuk, K.B. Tolpygo and E.I.Rashba for valuable advice and he thanks

Card 3/4

109-9-14/15

Investigation of the Transient Processes in Point Contact Germanium Transistors.

A.N. Kvasnitskaya, E.B. Mertens and K.D. Glinchuk for their help. There
are 8 figures, 4 tables and 11 references, of which 1 is Slavic.

ASSOCIATION: Physics Institute of the Academy of Sciences of the Ukrainian Soviet
Republic, Kiyev (Institute Fiziki AN Ukr SSR g. Kiyev)

SUBMITTED: July 22, 1956

AVAILABLE: Library of Congress

Card 4/4

SECRET, U.S.

AUTHOR KVASNITSKAYA, A.N., MERTENS, E.B., MISELYUK, E.C., PA - 2530
SKOPENKO, A.I.

TITLE: Germanium Point Triodes with Low Lifetime of Minority Carriers.
(Tochechnyye triody iz germaniya s malym vremenem zhizni nos-
novnykh nositeley toka, Russian)

PERIODICAL: Zhurnal Tekhn. Fiz., 1957, Vol 27, Nr 3, pp 437 - 440 (U.S.S.R.)
Received: 4 / 1957 Reviewed: 5 / 1957

ABSTRACT: Investigations for the development of Germanium point triodes
which are suited for fast acting impulse-schemes are described.
The duration t_c of the process (reduction of the collector-
current after the end of the impulse of the emitter current from
the value which corresponds to the saturation state, to the
value corresponding to the final state of the triod) can by a
manyfold exceed the duration t_a of the process of the increase
of the collector current up to the value corresponding up to the
state of saturation. The factors which influence t_c were determin-
ed in order to find ways for the reduction of t_c , the relations
between t_c and t_a were investigated, as well as other relations
between factors which influence the frequency characteristics
and the actual life of the unreal (minority) current carriers
 τ_{eff} . Life was measured by means of the photoelectric method.
The samples were of n-germanium with the specific resistance

Card 1/2

SOV/120-58-2-16/37

AUTHORS: Glinchuk, K. D., Miselyuk, Ye. G., Skopenko, A. I.

TITLE: Measurement of Small Lifetimes of Non-Equilibrium Current Carriers in Germanium (Izmereniye malykh vremen zhizni neravnovesnykh nositeley toka v germanii)

PERIODICAL: Priroda i Tekhnika Eksperimenta, 1958, Nr 2, pp 62-64 (USSR)

ABSTRACT: The measurement of small lifetimes of non-equilibrium current carriers in germanium is of both theoretical and practical interest. Measurements of such lifetimes are necessary in studying recombination processes in germanium. The present paper reports results of measurements of lifetimes of the order of 0.5 μ sec using the transfer characteristics of a point-contact triode working under saturation conditions. Additional data are given which illustrate the applicability of the conductivity modulation method in this case. It is shown that

$$t_d = \tau \ln(i_e / i_{e \text{ crit}})$$

where t_d is the delay time of the collector current, i_e is the emitter current, $i_{e \text{ crit}}$ is the critical emitter current which corresponds to the fall in the collector current to its

Card 1/3

SOV/120-58-2-16/37

Measurement of Small Lifetimes of Non-Equilibrium Current Carriers in Germanium.

constant value, and τ is the effective lifetime of non-equilibrium current carriers in the point-contact triode. Thus the lifetime is expressed in terms of measurable quantities and can be determined from the above formula. The equation was verified experimentally. The table on p.63 gives the values of the effective lifetimes as a function of the resistivity. The method of conductivity modulation for germanium first suggested by the present authors in Ref.4 was used to find the variation of the lifetime with temperature. This dependence is shown in Fig.3. E. I. Rashba and G. T. Dikaya are thanked for their help. There are 3 figures, 1 table and

Card 2/3

SOV/120-58-2-16/37

Measurement of Small Lifetimes of Non-Equilibrium Current Carriers
in Germanium.

5 Soviet references.

ASSOCIATION: Institut fiziki AN USSR (Institute of Physics of the
Academy of Sciences of the USSR)

SUBMITTED: June 21, 1957.

Card 3/3

1. Germanium--Electrical properties 2. Mathematics--Applications

SKOPENKO, D., DEMGIN, A.

Hemp

High yields of hemp. Kolkh. proizv. 12 no. 7, 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952. UNCLASSIFIED.

L 32036-66 EWP(e)/EWT(m)/EWP(w)/T/EWP(t)/ETI IJP(c) JD/WW/JG/DJ/AT/WH

ACC NR: AP6018606

SOURCE CODE: UR/0420/65/000/004/0076/0083

AUTHOR: Belitskiy, M. Ye.; Yas', D. S.; Parkhomenko, M. A.; Skopenko, I. F. 61
59

ORG: Kiev Institute of Civil Aviation (Kiyevskiy institut grazhdanskoy aviatsii);
Institute of the Problems of the Science of Materials, AN UkrSSR (Institut problem
materialovedeniya AN UkrSSR) B

TITLE: Investigation of the strength and antifriction properties of mica crystal
materials with boron nitride additions 11 6

SOURCE: Samoletostroyeniye i tekhnika vozdushnogo flota, no. 4, 1965, 76-83

TOPIC TAGS: bearing, high temperature bearing, bearing material, packing material,
sintered material, mica containing material, boron nitride containing material,
antifriction material, heat resistant material

ABSTRACT: A new packing material of the UMB-SKT system for gas turbine and
compressor shafts has been proposed. These materials are made from a mixture of
fine powders of $KMg_3(Al-Si_3O_{10})F_2$ synthetic mica (specific weight 2.75 g/cm^2 ,
70—75 HB hardness) and boron nitride. In tests, the mixtures, containing 2—20% BN,
were moistened with a 10% polyvinyl alcohol solution, compacted under a pressure of
 $1.0\text{—}1.5 \text{ t/cm}^2$ and sintered in air at $1050\text{—}1070^\circ\text{C}$. The sintered materials, which
had a porosity of 10—15%, were tested for compression and bend strength and for
antifriction properties in dry friction and in friction with lubrication. Mechanical

Card 1/3

L 32036-66

ACC NR: AP6018606

tests showed that as boron nitride content increased from 2 to 20%, the compression strength of the materials decreased from 6.4 to 2.8 kg/mm², the bend strength from 2.6 to 1.4 kg/mm², and the hardness from 58 to 15 HB. In friction tests with a lubricant (MS-20 oil) at a speed of 1—4 m/sec under a specific pressure of 10—150 kg/cm², the friction coefficient of all tested materials decreased with increasing specific pressure at all testing speeds (see Fig. 1). Materials containing

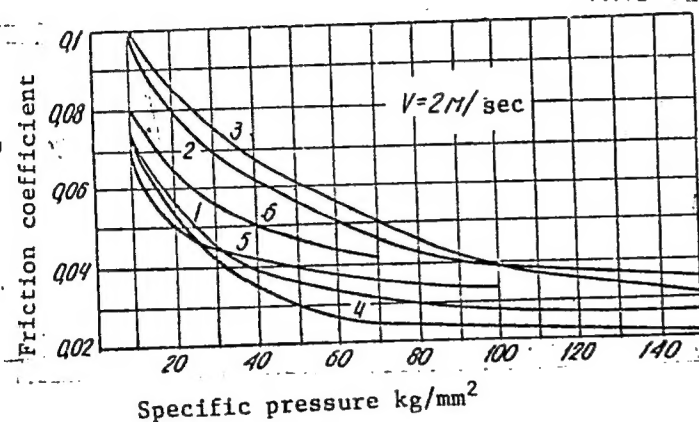


Fig. 1. Specific pressure dependence of the friction coefficient of UMB-5KT materials:

Containing 2% BN (1); 4% BN (2); 6% BN (3); 8% BN (4); 10% BN (5); and 15% BN (6). tested with lubrication.

Card 2/3

L 32036-66

ACC NR: AP6018606

2
2 to 8% BN sustained a load up to 150 kg/mm², those with a higher BN content, up to 70 to 100 kg/mm², and no bearing seizure was observed in the entire range of the investigated pressures and speeds. Under dry friction, materials containing 4 to 8% BN had the best antifriction properties. The UMB-5KT parts are readily fabricated and machined. They have low hardness (55—14 HB), satisfactory strength and high heat resistance at temperatures up to 1100C. These qualities make it possible to use them as high-temperature packing materials and also as materials for sliding bearings working under conditions of dry friction and, especially, under conditions of friction with lubrication. Orig. art. has: 8 figures. [MS]

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 003/ ATD PRESS: 50/9

Card

3/3

20

L 40784-66 EWP(e)/EWT(m)/EWP(v)/T/EWP(t)/ETI IJP(c) WH/NN/JD/JG
ACC NR: AP6018607 SOURCE CODE: UR/0420/65/000/004/0084/0090

AUTHOR: Belitskiy, M. Ye.; Yas', D. S.; Parkhomenko, M. A.; Skopenko, I. F.

ORG: Kiev Institute of Civil Aviation (Kiyevskiy institut grazhdanskoy aviatsii);
Institute of Problems in the Science of Materials AN UkrSSR (Institut problem materi-
alovedeniya AN UkrSSR)

TITLE: Investigating the thermal stability of new packing materials in the UMB-5KT system

SOURCE: Samoletostroyeniye i tekhnika vozdushnogo flota, no. 4, 1965, 84-90

TOPIC TAGS: thermal stability, gas turbine engine, aircraft engine, high temperature oxidation, nonclay refractory product, packing material/ UMB-5KT packing material, K30/70 packing material

ABSTRACT: The authors study the problem of deterioration of sealing inserts in aircraft turbines due to the effect of gas flow. It is shown that the properties of sealing inserts may be radically improved by using new materials in the UMB-5KT system. The base used in these materials is a synthetic roasted crystalline mica with high thermal stability, and the binder is boron nitride which is chemically inert in an oxidative atmosphere to 800-900°C. The thermal stability and changes in some of the strength properties of the new materials were studied during protracted oxidation.

Card 1/2

L 1078L-66

ACC NR: AP6018607

Parallel control tests were conducted using conventional K30/70 packing material with a heat-treated graphite¹⁵ base and additives of various refractory compounds. Specimens measuring 7x7x70 mm were tested for thermal stability at 300-1100°C with a maximum holding of 100 hours at each temperature except that maximum holding was 15 hours at 1100°C. Thermal stability was evaluated by the change in weight of the specimens. The results show somewhat of a reduction in the strength properties of the new materials with practically no change in thermal stability when the boron nitride concentration is increased. Protracted oxidation increases the strength properties of the materials which makes them useful for long-term application under conditions of periodic low bending and compressive stresses which are generated by distortion of guide vane assemblies. The optimum composition for the packing material is determined by its mechanical strength, erosion resistance and running-in properties. The new materials showed higher thermal stability than the control material from 20 to 1100°C. There are practically no changes in the chemical composition and structure of the materials during oxidation and they also have the advantage of low hardness (20-40 HB) which should make them useful for packing the flow sections of compressors in gas turbines. The experimental results show that K30/70 material has satisfactory thermal stability only up to 500°C and cannot be recommended for protracted operation at higher temperatures. Orig. art. has: 6 figures, 1 table.

SUB CODE: 01/11/13/10 SUBM DATE: none/ ORIG REF: 002/ OTH REF: 001

Card 2/2